

REMARKS:Status

Claims 23, 24, 26 to 36, 38 to 48 and 50 to 58 are pending. Claims 23, 35 and 47 are independent claims. Reconsideration and further examination are respectfully requested.

Rejections

Claims 23 to 26, 28, 29 and 34 were rejected under 35 U.S.C. § 102(e) in view of U.S. Patent No. 6,446,220 (Menon). Claims 30 to 33 were rejected under 35 U.S.C. § 103(a) over Menon in view of U.S. Patent No. 5,720,029 (Kern). Claim 27 was rejected under § 103(a) over Menon. Claims 35 to 38, 39, 40, 41, 46 to 50 to 53 and 58 were rejected under § 103(a) over Menon in view of U.S. Patent No. 5,781,716 (Hemphill). Claims 42 to 45 and 54 to 57 were rejected under § 103(a) over Menon in view of Hemphill and further in view of U.S. Patent No. 5,720,029 (Kern).

Response to Rejections

Claims 25, 37 and 49: These claims were cancelled in an earlier response, rendering the rejections of those claims moot.

Claims 23, 24, and 26 to 34: Independent claim 23 is reproduced below:

23. A file server including
a common set of storage elements;

at least a pair of nodes disposed in said file server, each of said nodes being connected to said common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements;
at least one inter-node connectivity element coupled to said nodes;
and
a connection for coupling said file server commands to said nodes.

Claim 23 was rejected under § 102(e) in view of Menon. Applicant respectfully traverses this rejection.

In more detail, Menon is not seen by Applicant to disclose or to suggest the features of claim 23, at least with respect to “at least a pair of nodes disposed in said file server, each of said nodes being connected to said common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements.”

The Office Action cited Menon’s nodes 4a to 4c as being equivalent to the claimed nodes. However, Applicant submits that Menon does not teach disposing at least a pair of these nodes in a file server, as recited by claim 23. The Office Action appears to Applicant to address this issue with the following language: “Menon discloses a file server; see col. 13, lines 11-15 (this can be part of a file server system).”

The entire paragraph that contains the cited language of Menon follows:

The preferred embodiments may be implemented as a method, apparatus or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof. The term “article of manufacture” (or alternatively, “computer program product”) as used herein is intended to encompass one or more computer programs and data files accessible from one or more computer-readable devices, carriers, or media, such as a magnetic storage

media, "floppy disk," CD-ROM, a file server providing access to the programs via a network transmission line, holographic unit, etc. Of course, those skilled in the art will recognize many modifications may be made to this configuration without departing from the scope of the present invention.

To Applicant, this language is stating that the "article of manufacture" or "computer program product" embodiment of the invention can be "a file server providing access to the programs via a network transmission line." This is entirely different from stating that the elements shown in Figure 1 of Menon, including nodes 4a to 4c, are part of a "file server system." Rather, the language appears to indicate that a file server system can provide access to computer programs for implementing Menon's invention.

Applicant submits that this position is bolstered by Figure 1 and col. 3, lines 38 to 40, of Menon, which states the following: "FIG. 1 illustrates a shared device environment comprised of nodes 4a, b, c. Each node includes a computer 6a, b, c, i.e., central processing unit, and an adaptor card 8a, b, c." To Applicant, this language indicates that each node includes a computer and an adaptor card, which Applicant respectfully submits is an entirely different arrangement from claim 23's "at least a pair of nodes disposed in said file server."

In the Response to Arguments section of the Office Action, the Examiner stresses "that 'node' is a broad term." The Examiner also quotes The Microsoft Press Computer Dictionary 3rd Ed.'s definition of a node. However, Applicant contends that the salient issue is that the arrangement of the nodes in a server recited by claim 23 is different from that shown in the applied art.

The Response to Arguments section indicated that the Microsoft Press definition was provided “to respond to [Applicant’s] argument that because Hemphill distinctly refers to ‘servers,’ the ‘servers’ cannot therefore be ‘nodes.’”

Applicant acknowledges that, in a general sense, a server certainly can be considered to be a “node.” However, in this specific case, the claim language recites “at least a pair of nodes disposed in said file server.” The claim language further recites that “each of said nodes is connected to said common set of storage elements and [includes] a processor and a memory so as to be capable of processing file server commands for said common set of storage elements.” It is this specific arrangement that Applicant does not see in the applied art.

For example, in Hemphill, servers 100 and 200 are not both included in another server. Likewise, the pair of controllers in each server are not both connected to a common set of storage elements – rather, each controller is connected to a different disk subsystem. Thus, Hemphill, which was applied against certain of the other claims, is not seen by Applicant to remedy the deficiencies of Menon.

Kern, which was also applied against certain of the other claims, likewise is not seen to disclose the particular arrangement of a server with plural nodes recited by claim 23.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 23 and its dependent claims 24 and 26 to 34. Allowance of those claims also is respectfully requested.

Independent claims 35, 36, and 38 to 46: Claim 35 is reproduced below:

35. A method of operating a file server including

operating at least a pair of nodes disposed in said file server, each of said nodes being connected to a common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements;

communicating with other nodes in at least one other file server through at least one inter-node connectivity element coupled to said nodes; and

coupling said file server commands to said nodes.

Claim 35 was rejected under § 103(a) over Menon in view of Hemphill.

Applicant respectfully traverses this rejection.

In more detail, the applied art, alone or in combination, is not seen by Applicant to disclose or to suggest the foregoing features of claim 35, at least with respect to “operating at least a pair of nodes disposed in said file server, each of said nodes being connected to a common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements.” In particular, the applied art is not seen to disclose or to suggest this particular arrangement of nodes in a server.

For at least this reason, reconsideration and withdrawal are respectfully requested of the § 103(a) rejection of claim 35 and its dependent claims 36 and 38 to 46, as is allowance of those claims.

Claims 47, 48, and 50 to 58: Independent claim 47 is reproduced below:

47. A memory storing information including instructions, the instructions executable by a processor to operate a file server, the instructions comprising:

operating at least a pair of nodes disposed in said file server, each of said nodes being connected to a common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements;

communicating with other nodes in at least one other file server
through at least one inter-node connectivity element coupled to said nodes;
and
coupling said file server commands to said nodes.

Claim 47 was rejected under § 103(a) over Menon in view of Hemphill.

Applicant respectfully traverses this rejection.

In more detail, the applied art, alone or in combination, is not seen by Applicant to disclose or to suggest the foregoing features of claim 47, at least with respect to “operating at least a pair of nodes disposed in said file server, each of said nodes being connected to a common set of storage elements and including a processor and a memory so as to be capable of processing file server commands for said common set of storage elements.” In particular, the applied art is not seen to disclose or to suggest this particular arrangement of nodes in a server.

For at least this reason, reconsideration and withdrawal are respectfully requested of the § 103(a) rejection of claim 47 and its dependent claims 48 and 50 to 58, as is allowance of those claims.

Request for Interview

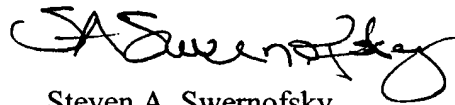
If the Examiner does not find Applicant’s arguments to be persuasive, Applicant respectfully requests a telephonic interview with the Examiner, the Examiner’s supervisor Glenton Burgess, Applicant’s representative Dane. C. Butzer, and Mr. Butzer’s supervising attorney at the Swernofsky Law Group, Steven A. Swernofsky.

Closing

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney can be reached at (650) 947-0700. All correspondence should be directed to the address indicated below.

Respectfully submitted,



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